<u>REMARKS</u>

The present application was filed on October 12, 2001 with claims 1-18. Claims 1-18 were pending in the application prior to the amendments herein. Claims 1, 7, 13, 15, 17 and 19 are now the independent claims.

Claims 1-3 and 7-18 are rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,529,954 (hereinafter "Cookmeyer").

Claims 4-6 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,529,954 (hereinafter "Cookmeyer") in view of U.S. Patent Application Publication No. 2002/0073195 (hereinafter "Hellerstein").

In this response, Applicants respectfully add new claim 19. Applicants respectfully request reconsideration of the present application in view of the amendments above and remarks below.

As pointed out in Applicants previous response, the present invention is directed to, for example, as recited in amended independent claim 7, a computer-based method of providing decision support to an analyst in accordance with an event management system which manages a network with one or more computing devices. The method comprises the steps of automatically analyzing, off-line, data representing past events associated with the network of computing devices being managed by the event management system, the automated off-line analysis comprising generation of one or more visualizations of one or more portions of the past event data and discovery of one or more patterns in the past event data, and automatically managing rules off-line, the automated off-line rule management comprising construction and validation of one or more rules formed in accordance with the automated off-line analysis of the past event data. Independent claims 1, 13, 15 and 17 recite similar limitations.

Thus, Applicants respectfully point out that the claimed invention provides the feature of a combined off-line automatic data analysis and off-line rule management methodology. That is, both data analysis and rule management are provided in a single automated off-line tool.

Despite the assertions in the Office Action, Cookmeyer does not disclose a combined off-line automatic data analysis and off-line rule management methodology, as in the claimed invention. Applicants respectfully point out that the only "off-line" operation that Cookmeyer suggests is with

regard to "expert analysis." In fact, the only occurrences of the term "off-line" in Cookmeyer appear at col. 5, line 44; col. 5, line 58; col. 5, line 62; col. 21, line 46; and col. 5, line 53, and in each occurrence, it is clear that the term "off-line" is used only in the context of "expert analysis" and not in the context of a combined automatic data analysis and rule management methodology, as in the claimed invention.

The relationship between the so-called expert analysis and the rules can be seen in the Abstract of Cookmeyer, which states that the rule-based expert analysis system of Cookmeyer "allows the rules that are used in the analysis to be <u>defined at run time, instead of fixed rules which are defined at design time</u> and which use fixed threshold values" (underlining added for emphasis). Thus, any rules that Cookmeyer refers to are defined at run time (i.e., online) rather than at design time (i.e., offline). Hence, Cookmeyer does not disclose that one or more rules are constructed offline and validated offline based directly on at least a portion of the one or more visualizations generated offline from the corresponding offline analysis of the one or more portions of the past event data and the offline discovery of at least a portion of the one or more patterns in the past event data, as in the claimed invention.

In the Office Action dated April 27, 2006, the Examiner states:

> At col. 5, lines 40-44, Cookmeyer discloses the expert system performs the diagnostic assessment in accordance with an expert analysis algorithm, either as an 'on the fly' or in an off-line manner on captured performance data files. That is the expert system performing the combination of diagnostic assessment (rule management methodology) and expert analysis algorithm (automatic data analysis) in the off-line.

However, whether or not one can suggest that Cookmeyer discloses rule management that is associated with some form of expert analysis, it is clear that Cookmeyer does not disclose that one or more rules are constructed offline and validated offline based directly on at least a portion of the one or more visualizations generated offline from the corresponding offline analysis of the one or more portions of the past event data and the offline discovery of at least a portion of the one or more patterns in the past event data, as recited by the claimed invention. That is, there are no steps/operations disclosed in Cookmeyer for offline rule construction and offline rule validation that

are <u>based directly on</u> at least a portion of the one or more visualizations generated offline from <u>the</u> <u>corresponding offline analysis</u> of the one or more portions of the past event data and the offline discovery of at least a portion of the one or more patterns in the past event data (again, underlining added for emphasis). Again, <u>rules are handled in Cookmeyer at run time, not offline</u>.

Applicants respectfully point out that the Hellerstein reference is not a proper prior art reference for a §103(a) rejection. As per §103(c), Applicants assert that the subject matter of Hellerstein and that of the claimed invention were, at the time the claimed invention was made, subject to an obligation of assignment to the same entity, i.e., International Business Machines Corp. Accordingly, Applicants respectfully request the §103 rejection to be withdrawn.

Applicants have added claim 19 to further define the novel architecture of the present invention. New claim 19 is directed to an event management decision support system for providing decision support to an event management system which manages a network with one or more computing devices. The event management decision support system comprises of: an event analysis module, further comprising of an event mining module and an event visualization module, wherein the event mining module discovers patterns in event data, and wherein the event visualization module provides a mechanism for visualizing at least a result of a pattern discovery and a rule analysis; and a rule management module, further comprising a rule validation module and a rule construction module, wherein the rule validation module maintains consistency of at least a rule with the event data and wherein the rule construction module provides a mechanism for constructing one or more rules based on event patterns mined by the event mining module; wherein the one or more rules are constructed offline by the rule construction module and validated offline by the rule validation module based directly on at least a portion of the one or more visualizations generated offline by the event visualization module from the corresponding offline analysis of the one or more portions of the event data and the offline discovery of at least a portion of the one or more patterns in the event data by the event mining module. Support for claim 19 is shown in FIG. 2 and page 10 lines 4-28 and page 11 lines 1-6 of the present specification.
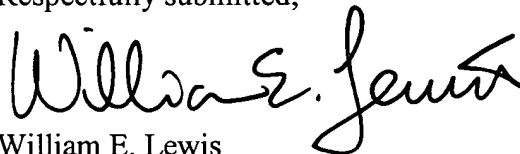
The Cookmeyer reference, in col. 3, lines 22-28, states the following, with emphasis supplied:

The rules in each category are arranged in a hierarchy, with each rule being interdependent in a prioritized arrangement with one or more other rules in the same, or in another category. The rule interdependencies are fixed, however, the priorities are adapted to the objective of the particular analysis, <u>as entered by the user, such that the rules to be used for a given analysis are defined at run time</u>.

Cookmeyer is distinguishable from claim 19, which utilizes an event mining module to discover patterns in an event data, an event visualization module to provide mechanisms for visualizing at least a result of pattern discovery and rule analysis, a rule validation module to maintain consistency of at least a rule with the event data module, and a rule construction module to provide at least a mechanism for constructing one or more rules based on event patterns mined by the event mining module, wherein the one or more rules are constructed offline by the rule construction module and validated offline by the rule validation module based directly on at least a portion of the one or more visualizations generated offline by the event visualization module from the corresponding offline analysis of the one or more portions of the event data and the offline discovery of at least a portion of the one or more patterns in the event data by the event mining module. Instead, Cookmeyer adapts the objective of the analysis by having the <u>user</u> enter the priorities, thereby defining the rules at <u>run time</u>.

In view of the foregoing, claims 1-19 are believed to be in condition for allowance.

Respectfully submitted,

Date: July 27, 2006

William E. Lewis
Attorney for Applicant(s)
Reg. No. 39,274
Ryan, Mason & Lewis, LLP
90 Forest Avenue
Locust Valley, NY 11560
(516) 759-2946

12